

FOREST INSECT AND DISEASE MANAGEMENT UNIT
U.S. FOREST SERVICE
DORAVILLE, GEORGIA

REPORT OF AERIAL DETECTION SURVEY

LAND OWNERSHIP OR SURVEY AREA: Copiah, Jasper, Newton, Rankin, Scott,
Simpson, Smith Counties

STATE: **Mississippi**

AREA WITH SURVEY BOUNDARY: 3,000,400 acres

AREA WITHIN NATIONAL FOREST BOUNDARY (Bienville and Homochitto): 400,321 acres

PERCENT COVERAGE: 25%

DATE SURVEYED: January 22-24, 1979

AIRCRAFT: Aero Commander 500B

CREW: C. W. Dull, R. F. Bassett

REPORTED PREPARED BY: C. W. Dull

SURVEY OBJECTIVES: The purpose of this aerial survey was to determine the location of southern pine beetle (SPB) activity within the area specified by the study "Determination of Annual Timber Mortality Caused by the Southern Pine Beetle."

SURVEY RESULTS

The results of this aerial survey are contained in Table 1. The most concentrated area of SPB activity (52% of total spots observed) was located on or adjacent to the Bienville National Forest in Scott and Smith Counties (Fig. 1).

CONCLUSIONS

The results of this aerial survey indicate that SPB activity within the SPB Impact Study area of central Mississippi has decreased since the survey of February, 1978. A 29% decrease in the number of spots per acre surveyed has occurred since the previous survey. Spots continue to be concentrated in Scott and Smith Counties on and adjacent to the Bienville National Forest.

For any additional information, Contact:

Forest Insect and Disease Management Unit, S&PF
USFS - Southeastern Area

Northgate Office Park
3620 Interstate 85, N.E.
Doraville, GA 30340
Telephone: 404-221-4796

or

2500 Shreveport Highway
Pineville, LA 71360
Telephone: 318-445-6511

Table 1. Results of Aerial Detection Survey on Seven Counties in Mississippi, January 22-24, 1979.

	County							
	Copiah	Jasper	Newton	Rankin	Scott	Simpson	Smith	Total
No. spots observed ^{1/}	7	5	23	19	42	10	28	134
Percent of total no. spots observed	5%	4%	17%	14%	31%	8%	21%	
Estimated spot size								
1-5 trees	3	4	13	11	16	7	13	67 (50%)
6-20 trees	3	1	7	8	12	2	10	43 (32%)
21-50 trees	0	0	1	0	7	0	0	8 (6%)
51-100 trees	1	0	2	0	4	0	5	12 (9%)
100+ trees	0	0	0	0	3	1	0	4 (3%)
Estimated range in spot size (trees)	1-100	1-20	1-100	1-20	1-200	1-150	1-75	1-200
No. acres surveyed	499,900	437,100	371,200	512,000	393,600	375,700	410,900	3,000,400
No. acres within NF boundary	17,500	30,720	11,540	-0-	209,920	-0-	130,641	400,321
% spots within NF boundary	0%	40%	0%	--	72%	--	54%	35%
% survey within NF boundary	5%	7%	3%	0%	53%	0%	32%	13%
No. spots expanded to 100% coverage	28	20	92	76	168	40	112	536

^{1/} Areas of red and fading pine trees suspected to contain SPB populations detected with 20% survey coverage.

Figure 1. Seven county aerial survey for SPB detection, 1/22-24/79

